


CITY OF NEWARK

Delaware

July 16, 2008

TO: Mayor and City Council

FROM: Roy H. Lopata, Interim City Manager 

SUBJ: Proposed Redesign of the Casho Mill Road/Elkton Road Intersection

As you will recall, based on the discussion during Council's review of the Wilson Farm annexation and major subdivision, the Planning & Development Department requested that the Delaware Department of Transportation (DelDOT) evaluate the possibility of redesigning the Casho Mill Road/Elkton Road intersection to permit left turns from Casho Mill Road to Elkton Road. The concern raised at Council, and reiterated in my letter, was that the new residents at the Wilson Farm seeking to travel toward downtown Newark would either use Thorn Lane or head north through the Casho Mill Road underpass and turn right at Barksdale Road. As you can see, DelDOT has performed a traffic analysis estimating the benefits and risks of making this change. Please note that DelDOT has indicated that in order to facilitate this redesign, the Elkton Road left turn onto Casho Mill Road (for vehicles heading north) would need to be increased to two left turn lanes. It appears from their analysis of this proposal that DelDOT believes the risks outweigh the benefits.

City Staff

To assist Council in evaluating this proposal I asked the Police and Planning & Development Departments to provide their comments.

By way of summary, the Traffic Division of the Police Department raised concerns similar to those noted by DelDOT. The Department indicates, more specifically, that utilizing the intersection at Thorn Lane and Elkton Road for access downtown provides a better line of sight than the Elkton Road/Casho Mill Road location and, of course, does not result in the risks noted in the DelDOT report.

The Planning & Development Department indicates some concern with the potential increase in traffic on Casho Mill Road resulting from this proposal and notes the potential negative impact on the Casho Mill Road one lane underpass. On the other hand, the Department is not sure that a significant Casho Mill Road traffic increase would result from the addition of the left hand turn at the Casho Mill Road/Elkton Road

intersection because many motorists from the north heading downtown would presumably continue to use Barksdale and Apple Roads. In addition, the ability to turn left into Elkton Road would benefit Wilson Farm residents seeking to travel east to downtown without impacting the underpass.

Council Action

As you can see from DelDOT's letter, we have been asked to provide our final recommendation to DelDOT by the end of July. Please also note that because it is somewhat unclear from DelDOT's letter, I have confirmed with DelDOT's Shanté Hastings that if we request the left turn from Casho Mill Road to Elkton Road it will be included as part of the Elkton Road improvement project.

In any case, in order to meet DelDOT's deadline, this item has been scheduled for review at your July 28, 2008 meeting.

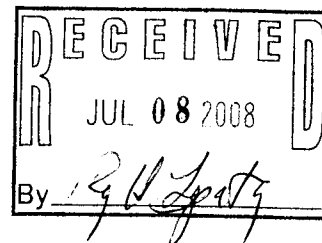
RHL/mp

Attachment

c: Paul M. Tiernan, Chief of Police
Maureen Feeney Roser, Interim Director of Planning & Development



STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
800 BAY ROAD
P.O. Box 778
DOVER, DELAWARE 19903



CAROLANN WICKS, P.E.
SECRETARY

July 1, 2008

Mr. Roy Lopata
Acting City Manager
220 Elkton Road
Newark, DE 19711

Dear Mr. Lopata:

In response to your letter, DelDOT has evaluated your request to redesign the Casho Mill Road/Elkton Road intersection to permit left turns from Casho Mill Road onto Elkton Road. As you know, the recommendations of the planning study did not include providing a left-turn from Casho Mill Road onto Elkton Road. The attached diagram shows the current design based on the planning study. With this plan, we are proposing to extend the left turn storage length on Elkton Road and provide some improvements to the signal phasing. Based on this plan, the level of service for the design year is LOS D (AM) and LOS D (PM).

Per your request, DelDOT performed a traffic analysis for the Elkton Road/Casho Mill Road intersection, the railroad underpass, and the Barksdale Road/Casho Mill Road intersection. Each intersection was studied for overall level of service and queuing for the design year of 2030. In addition, the analysis included the existing access points and the proposed entrance for Saw Mill Place (a.k.a. Wilson Farm). The Department then analyzed an alternative that would provide left turns from Casho Mill Road onto Elkton Road. In order to accommodate the left turn movement from Casho Mill Road, which would add another phase to the signal, we need to increase the capacity of the opposing left turn from Elkton Road. Therefore, with this option, two left turn lanes on Elkton Road would be needed at the intersection. The attached diagram shows the alternative design. With this alternative, the level of service for the design year is LOS C (AM) and LOS C (PM).



Changing the geometry of the intersection has benefits and risks. The following summarizes both:

Benefits:

- Adding the left turn from Casho Mill Road improves mobility in the Newark area by providing another point of access to Elkton Road from the west side of Newark. Due to the presence of the rail line, these connections are currently limited to Thorn Lane and Apple Road.
- The additional access to eastbound Elkton Road could reduce trips at Thorn Lane and Apple Road, thereby improving the operation of these intersections.
- Providing the double left turn from Elkton Road improves the operation of the Casho Mill intersection significantly during construction based on our current construction phasing plan.
- Residents from Saw Mill Place will be less likely to use Thorn Lane as a short cut to Elkton Road.

Risks:

- Improving the intersection will draw more traffic to Casho Mill Road for use as a potential bypass of downtown Newark. It has been our understanding that the City has historically not supported improvements that would have this effect.
- Additional traffic on Casho Mill Road will hasten the demand to widen the underpass to two lanes. We understand that residents along Casho Mill Road are opposed to any widening. Furthermore, a project to widen the underpass is not in the six-year Capital Transportation Program or the long-range Regional Transportation Plan. Widening the underpass would be an expensive undertaking and it is not likely to be a high priority with our current funding constraints. Therefore, the City should not anticipate that this improvement will be made.
- With the double left turn lane, Casho Mill Road will need to be widened to accommodate two receiving lanes in the northbound direction. Northbound traffic will need to be drop from two lanes to one lane prior to the railroad underpass. Without any physical improvement at the underpass, queuing at the underpass will become the most significant problem within the corridor. We are not proposing to add a signal at the underpass as part of our project; however, we will monitor the queuing to determine if a signal should be installed. Adding a signal at the underpass may improve safety, but the capacity improvement would be minimal.

Mr. Roy Lopata

July 1, 2008

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The City should consider this alternative very carefully. If the decision is made to allow lefts-out, it will be difficult to impose restrictions on its use. While we would work to help mitigate any future problems associated with this change, the City should not expect DelDOT to provide any additional funding for this intersection. Given our limited ability to do anything at the underpass, congestion can be expected. We, therefore, request that you review this information and then provide us with your preference on the intersection design by the end of July.

If you should have any questions, please feel free to call me at (302) 760-2371.

Sincerely,

A handwritten signature in dark ink, appearing to read "Drew A. Boyce". The signature is fluid and cursive, with the first name "Drew" being the most prominent.

Drew Boyce, P.E.
Assistant Director
North Project Development

DB:shw

Enclosures

cc: Donald Weber, P.E., Assistant Director, Traffic

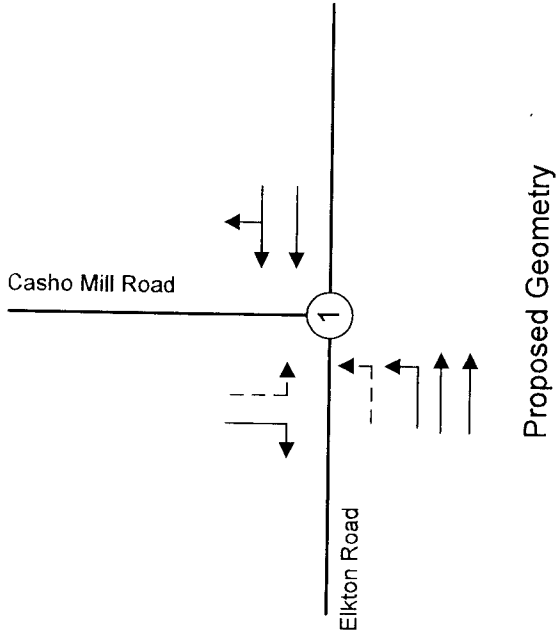
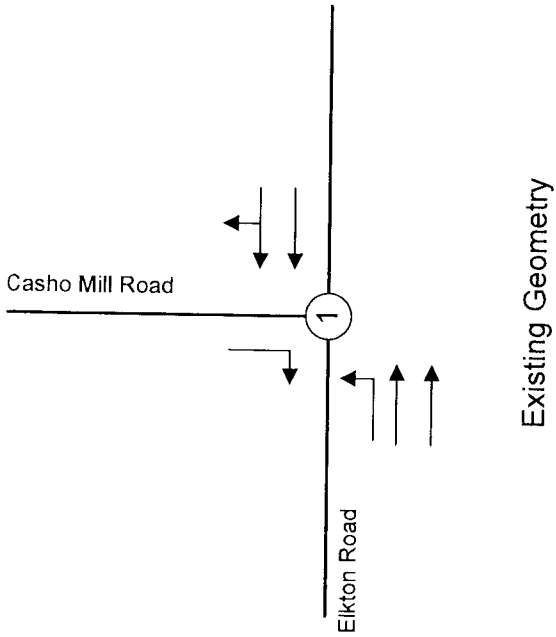
Mark Tudor, P.E., Group Engineer, North Project Development

Shanté Hastings, P.E., Squad Manager, North Project Development

Gary Laing, Community Relations Officer

David DuPlessis, P.E., Johnson, Mirmiran and Thompson

File



2030 Level of Service	AM	PM
With Existing Geometry	D	D
With Proposed Geometry	C	C

Legend:

①	Signalized Intersection
→	Existing Lane Configuration
---→	Proposed Lane Configuration

NOT TO SCALE

June, 2008

Roadway Geometry (Casho Mill Road at Elkton Road)



**DELAWARE
DEPARTMENT OF TRANSPORTATION**

APPENDUMS / REVISIONS

A vertical scale bar is located on the right side of the map. It is labeled 'SCALE' and 'FEET'. The scale has markings at 30, 60, and 90 feet.

**ELKTON ROAD,
CASHO MILL ROAD TO
DELAWARE AVENUE**

CONTRACT	BRIDGE NO.
24-044-01	DESIGNED BY:
COUNTY	CHECKED BY:
NEW CASTLE	

[illegible]

CASHO MILL ROAD
45 MPH CONCEPTUAL PLAN
PROPOSED LAYOUT

SHEET NO.	1	TOTAL SHTS.	2
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